



Wireless Security

Spring 2004

George W. Dinolt

# Course Outline

- Introduction
- Wireless Devices and Networking
- Security Policies for Wireless Systems
- Why Wireless is Different (or is it)
- Security Strategies for Wireless System

Text: **Wireless Security**, Merritt Maxim & David Pollino, RSA Press



# Labs

- Application Layer Security
- PPTP (Session level security)
- 802.11 Parsing Headers
- 802.11 Setting up WEP and Finding Keys
- BlueTooth
- Combination Strategies

# Wireless Comms

- Packet Radio
- satellite Comms
- Mobile Phone/CPDP/GPRS/...
- 802.??
- Bluetooth
- Other

# Policies

- Environment Policies
- System Policies
- Host Policies
- Gateway/Router/WAP/... Policies
- Network/Link/Physical Policies
- Composition of Policies

# Weaknesses

- Access to Network/Link/Physical layers
- Access to Physical Devices
- Physical Weaknesses of Devices
  - Power
  - Processing
  - Interfaces
  - Interfaces (Video, Sound, ...)

# Mitigation

- Physical Constraints
- Usage Policies
- System Architecture
- Hardware Assurance
- Software Assurance
- Cryptography